



XP 000189097

6001 Chemical Abstracts
84(1976)19 April, No.16, Columbus, OH, US

P. 333

Con B28/18

84: 110612t High-strength, extrusion-molded, lightweight calcium silicate product. Otoma, Takashi; Kubota, Kazuo; Yamada, Toshio (Nippon Asbestos Co., Ltd.) Japan. Kokai 75 95,319 (Cl. B28B), 29 Jul 1975, Appl. 73 143,931, 26 Dec 1973; 3 pp. A mixt. of calcareous and siliceous materials is mixed with a slurry of a hydrothermally synthesized Ca silicate [23296-15-3]. The resulting slurry is dewatered to adjust its water content to 50-120%, based on the total solids content, extruded, autoclaved, and dried to obtain high-strength Ca silicate products useful as building materials. Thus, Ca silicate hydrothermally synthesized from powd. siliceous stone 52 and milk of lime 1100 parts was dispersed in 15-fold water, and the slurry 30 parts (as solids content) was mixed with a mixt. of powd. siliceous stone 15, portland cement 35, bentonite 10, amosite asbestos 5, and methylcellulose 0.2 part. The mixt. was dewatered to water content 80-90% (based on the solids content), extruded, autoclaved at steam pressure 9 kg/cm² for 7 hr, and dried to obtain a lightwt. silicate product having d. 0.75 g/cm² and bending strength 80 kg/cm². Its shrinkage was 1.12% when heated at 1000°.



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C04B28 / 22 B

103:182776h Mixture for autoclaved lime-silica concrete.
Vrbecký, Jan; Rihánek, Stanislav Czech. CS 222,361 (Cl. C04B15/06), 15 Aug 1985, Appl. 80/4,174, 13 Jun 1980; 2 pp. Products with physicomech. properties comparable to cement-bonded concretes were prepd. from hydrothermally processed artificial aggregates (AA) and a flue dust-lime binder. Thus, a mixt. of 8 kg flue dust, 1.64 kg powd. lime, and 3.5 L water was pelletized, the pellets were heated 10 h at 1 MPa in a moist atm., and dried at 105° to give AA with bulk d. 880 kg/m³, vol. d. 1580 kg/m³, water sorption 47%, grain size 10-25 mm, and crushing strength 2.25 MPa (dry) and 1.69 MPa (moist). Mixing 1100 kg AA with 450 kg binder (prepd. from a 10:4.3 flue dust-lime mixt.) and 300 L water and heating 10 h at 1 MPa as above gave test bodies which had crushing strength in conformity with the no. 170 concrete std. L. J. Urhanek

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6001 Chemical Abstracts
95(1981)13 July, No.2, Columbus, OH, US

C04B28/20

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95-11663f High-strength calcium silicate products. Nippon Asbestos Co., Ltd. Jpn. Kokai Tokkyo Koho 81 14,466 (Cl. C04B15/06), 12 Feb 1981, Appl. 79/86,894, 11 Jul 1979; 6 pp. Hydrothermally synthesized Ca silicate is mixed with calcareous material, siliceous material, reinforcing fibers other than asbestos, and water, molded, and steam-cured. Thus, a slurry contg. Ca silicate 20, alkali-resistant glass fibers 4, siliceous stone 38, and $\text{Ca}(\text{OH})_2$ 38 parts was molded, autoclaved, and dried to obtain molded products having d. 0.61-0.63 g/cm³ and bending strength 85-90 kg/cm².